

**REMARKS**

Claims 1 to 5, 8 to 13, 16 to 23, 25 to 30, 42 to 54 are pending in the application; claims 6, 7, 14, 15, 24, 31 to 41 are canceled.

**Rejection under 35 U.S.C. 102**

Claims 1-4, 14, 22 stand rejected under 35 U.S.C. 102(b) as being anticipated by *Sakurai et al.* (US 5,006,422).

Claims 1-4, 6, 14, 22 and 24 stand rejected under 35 U.S.C. 102(b) as being anticipated by *Nakano* (EP 0 822 532).

Claim 1 has been amended to include the features of claims 6 and 7 so that the above rejection of claim 1 and its dependent claims no longer applies. Claims 6, 14, and 24 are canceled. Claim 22 now depends from claim 42.

Claim 4 has been rewritten in independent form including the features of claim 1 and also including a feature taken from the specification (paragraph 0017, lines 1 and 2). Claim 4 now claims a flat sheet material comprising a coating applied onto a substrate, wherein the coating comprises at least a first layer and particles are embedded in the first layer; wherein the particles are electrically activatable particles, magnetizable particles or electrically activatable and magnetizable particles. By activation and/or magnetization of the particles when arranged in at least one of an electrical and a magnetic field, information is writable, retrievable and changeable on the sheet material. Fine cavities are provided in the coating and the particles are arranged in the cavities. The magnetizable particles, contained in the cavities, store information by undergoing targeted magnetization.

The claimed flat sheet material records information by **magnetizing magnetizable particles**. The present invention is based on the principle of magnetizing particles only at the time of information recording by magnetization of magnetizable particles, i.e., a change of magnetization occurs when information is recorded by means of a magnetographic device (in the same way information is magnetically written on diskettes and tapes).

U.S. 5,006,422 discloses a **visual** magnetic recording medium comprising a magnetic layer 13 (Fig. 1) having magnetic particles. Transparent layers 11, 12 are

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arranged on the **magnetic recording layer 13**. Layer 12 has microcapsules 14 that contain magnetic particles 17 suspended in a fluid (col. 4, lines 50-56). For information to be recorded and made visible, a magnetic field is applied that acts on the layer 13 such that a permanent magnet with north/south poles is generated (the layer 13 records magnetically the information by being magnetized, i.e., by retaining a remnant magnetic so that information is recorded and retained in the magnetic recording layer 13; see col. 6, lines 25-29). The magnetized pattern in layer 13 is made visible by the particles 17 in the microcapsules 14 that orient themselves in accordance with the magnetic north and south poles of the magnetized layer 13. As described in the prior art reference (col. 6, lines 38ff), the reoriented position of the flake-like particles 17 is permanently but erasably memorized by **lines of magnetic flux produced by a remnant magnetic force of the magnetic recording layer 13** - the magnetic particles 17 are not magnetized, i.e., they do not have a remnant magnetic force, but are only moved in accordance with the lines of magnetic flux generated by the magnetized layer 13.

The orientation of the magnetic particles 17 is not a change of their magnetization; it is a simple alignment in accordance with the magnetic field. In contrast to the present invention, the magnetic particles 17 do not undergo a targeted magnetization (to magnetize means to impart magnetic properties; see attached copy of Merriam-Webster OnLine). The information is magnetically recorded by magnetization only within the magnetic recording layer 13, and the layer 12 with magnetic particles 17 serves only as a visual display of the recorded (magnetized) pattern of layer 13.

The sheet material as claimed in instant claim 4 differs from the prior art in that the information is stored in the magnetizeable particles contained in the cavities by targeted magnetization; the particles are changed in regard to their magnetic properties and this change in magnetic properties records the information. The prior art device may be capable of providing images which are "writable, retrievable and changeable" but not by targeted magnetization of the magnetizable particles in the cavities.

The present invention as claimed in claim is therefore not anticipated by this prior

art reference as the prior art does not show magnetizable particles in cavities that are magnetized by targeted magnetization for storing information.

The rewritable indication label of EP 0 822 532 does not disclose any more than the already discussed patent U.S. 5,006,422; magnetic particles 11 are suspended in cavities 10, as shown in Figs. 2 and 3. As in U.S. 5,006,422, depending on the applied magnetic field, the magnetic particles 11 will orient themselves, in accordance with the external magnetic field, within the microcapsules in which they are free-floating. No magnetization (imparting of magnetic properties) occurs; the magnetic particles do not become information carriers by having magnetic properties imparted therein; their state of magnetization does not change; they simply re-orient themselves spatially, like iron filings to the field lines of a magnet, and do not change their magnetization for recording information. Instead, only a spatial reorientation takes place that changes the optical properties of the sheet material (shown in Figs. 2 and 3).

The sheet material as claimed in instant claim 4 differs from the prior art in that the information is stored in the magnetizeable particles in the cavities by targeted magnetization; the particles are changed in regard to their magnetic properties and this change in magnetic properties records the information. The prior art device may be capable of providing images which are "writable, retrievable and changeable" but not by targeted magnetization of the magnetizable particles in the cavities.

The invention is claimed in claim 4 is therefore also not anticipated by EP 0 822 532.

Claims 42-45 stand rejected under 345 USC 102(a) as being anticipated by *Tajiri et al.* (US 6,680,281).

It is respectfully submitted that the patent to *Tajiri et al.* is not a relevant reference. The instant application is a continuation of International Application PCT/EP01/05754 and claims the benefit under 35 USC 120 of the international filing date of **May 19, 2001**. The cited patent has a filing date of May 30, 2001 which is later than the filing date of the instant application.

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Therefore, claims 42 to 45 and claims 16 to 22, now made dependent from claim 42, cannot be anticipated by the cited prior art reference.

**Rejection under 35 U.S.C. 103**

Claims 15-21, 23, 24, 31-34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Sakurai et al.* or *Nakano*.

Claim 15, 24 and 31-34 have been canceled.

Claims 16 to 21 depend from claim 42 and should thus be allowable.

Claim 23 now depends from claim 5 and should thus be allowable.

**NEW CLAIMS 46 TO 54**

New claim 46 is the result of splitting up the alternatives of claim 45.

New dependent claims 47-51 correspond to the claims 10 to 13 and 23.

New claims 52-54 relate to a flat sheet material having a coating containing magnetizable particles and a dye in microcapsules. This is not disclosed in the cited prior art references.

**ALLOWABLE SUBJECT MATTER**

The examiner has indicated allowability of claims 5, 7-13, 25-30 over prior art.

Claim 5 has been rewritten in Independent form to include the features of claims 1 and 2 and should thus be allowable together with dependent claims 10-13 and 23.

Claim 7 has been incorporated into claim 1 together with claim 6 and is therefore believed to be allowable together with claims 8 and 9.

Claim 25 has been amended to include the features of claim 1 and should thus be allowable together with claims 26 to 30.

**CLAIMS FEES**

The instant amendment now contains a total of six independent claims; with the prior amendment a fee for a fourth independent claim has already been paid; the required fee in the amount of  $2 \times \$200.00$  (fee code 1201) = \$400 for two extra independent claims is to be charged to USPTO deposit account 50-1199.

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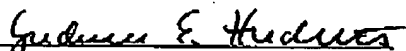
**CONCLUSION**

In view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

Should the Examiner have any further objections or suggestions, the undersigned would appreciate a phone call or e-mail from the examiner to discuss appropriate amendments to place the application into condition for allowance.

Authorization is herewith given to charge any fees or any shortages in any fees required during prosecution of this application and not paid by other means to Patent and Trademark Office deposit account 50-1199.

Respectfully submitted on July 5, 2005,

  
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Encl. Merriam-Webster OnLine: "magnetize"

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Company information



## Merriam-Webster Online Dictionary

One entry found for **magnetize**.

**Thesaurus**

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**Main Entry: mag-ne-tize**   
**Pronunciation:** 'mag-n&-tIz  
**Function:** *transitive verb*  
**Inflected Form(s):** -tized; -tiz-ing  
**1 :** to induce magnetic properties in  
**2 :** to attract like a magnet : **CHARM**  
- **mag-ne-tiz-able**  /- "tI-z&-b&l/ *adjective*  
- **mag-ne-tiz-er** *noun*

For More Information on "magnetize" go to [Britannica.com](http://Britannica.com)  
Get the Top 10 Search Results for "magnetize"

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